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Cooperative work experience programs were examined in terms of their scope and success in meeting student and community needs. Teacher-coordinators, administrators, and students participating in work programs at eight colleges offering work programs were interviewed. Students from industrial technology classes at a 4-year college were surveyed to determine the relationship between participation in these programs and performance in upper division courses. Among the findings of those interviews were: five of the eight colleges felt their advisory committees were effective; five out of eight students in these programs felt the work experience helped them more than regular classes; students felt the work could be more effectively planned; and work experience (not necessarily through junior college programs) was positively related to academic achievement at the 4-year college. It was concluded that these programs provide a great service to the community and there is a trend among junior colleges to continue and expand them. Recommendations included: only work stations relevant to student objectives should be selected; advisory committees should be encouraged to participate more actively; counselors should prevent students from entering programs without interest in the occupation; and coordinators of college programs should obtain feedback from high school programs. Suggestions for further research are included. (MB)

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WORK EXPERIENCE EDUCATION PROGRAMS
-INNOVATIONS IN THE JUNIOR COLLEGE CURRICULA

A Report Submitted in

Partial Fulfillment of the Requirements in

Education 261D - Seminar: The Junior College

School of Education
University of California
at Los Angeles

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by

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February 22, 1969

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

The great expansion of business and industry has brought with it countless positions requiring qualified personnel. The demand for people who are trained in specific occupational jobs has never been greater. Today, more than ever before, occupations are becoming more specialized and diversified within an industry, requiring numerous people with varied skills and abilities. Many of the young people who are attempting to fill these positions, however, are unskilled and unprepared to perform satisfactorily in a number of these work situations. They have not been sufficiently trained to enable them to obtain and hold some of the jobs that are available.

With the junior colleges working under the severe handicaps of insufficient funds and manpower, and inadequate facilities, it has been impossible for the teachers to equip students with sufficient knowledge and experiences to meet many of the community needs. With an increasing number of young people going into the labor market and concomitant increases in the scope, diversity and complexity of business and industry, new methods are needed whereby the junior colleges can make student learning experiences more commensurate and compatible with the needs of business and industry.

Innovations in both curricula and teaching methodology have become near requisites in the junior colleges in order for them to meet educational objectives. The exercise of creativity in developing new ways in which learning experiences of the students can be optimized appears to be increasing.

An innovation in the junior college curricula which has been growing in both scope and application in recent years is cooperative work experience education programs. As a means of better satisfying the needs of the community and of the student, a number of the junior colleges have instituted a variety of these cooperative programs.

The basic concept of the programs is to fill a need of the community for various types of workers by providing better trained people through the integration of students' classroom activities with the real work situation. Barlow reported:

> Experience has shown that a program which combines actual job experience with related school instruction can capture additional values for the student and can facilitate his transfer from student life to occupational life. Work experience education is based upon the principle that more value is to be found in the combination of school and job instruction than is to be had from in-school instruction alone.[1]

Because there is a community need for people who are trained in many fields and because many of the students

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[1]Melvin L. Barlow, A Survey of Junior College Work Experience Education Programs, 1962-63, (Los Angeles, Div. of Vocational Education, University of California at Los Angeles, 1963), p. 1.

who have participated in such programs and later proved to be successful in their fields, such cooperative programs have been viewed with new interest especially in the southern California area. E. G. Kramer, chief of the Bureau of Industrial Education in the State of California, stated that there is renewed interest in work experience programs particularly in the junior colleges in California.[2]

I. THE PROBLEM

Statement of the Problem. The primary purpose of this study was to (1) determine the scope of cooperative work experience programs in the southern California region today and (2) to evaluate the effectiveness of the programs. It was also the purpose of this study to classify those students who have transferred from junior colleges to the Industrial Technology program at California State College, Long Beach, and to determine if there was a relationship between the upper division grades of the transfer students, who had had work experiences prior to entering the Industrial Technology program, and those who had not had work experiences.

Importance of the Study. Rapid changes in technology during recent years have set a challenging pace for the junior colleges. Technological advancements in business and industry have resulted in countless positions requiring

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[2]Ibid. p. iii

personnel who are trained in specific occupational fields. It has been difficult for industrial leaders to fill many of these positions because of the lack of suitably trained personnel.

One of the goals of the junior colleges is to supply such personnel to business and industry. Their ability to maintain programs that will support this goal is vitally important. Many occupational programs have required extensive equipment, materials and instructional staff, some of which have been beyond the financial and physical capabilities of the institutions. As a consequence, an "education gap" appears to have developed between the effectiveness by which the junior colleges can supply this labor force and the on-going demands of industry for such personnel.

In a "practical" attempt to prepare students for some of the occupational positions many of the junior colleges have instituted cooperative work experience education programs. It is important, therefore, to determine the scope of these programs and the degree to which they are satisfying the needs of the student and the community.

II. DEFINITIONS OF TERMS USED

The writer discovered very soon that the terms Cooperative Education, Cooperative Work Experience Education and Cooperative Work Study Education are often used interchangeably in authoritative sources. Also, there appears to be differences of opinion about these terms among the coordinators who are directly engaged in these cooperative activities. Some of the definitions and explanations of these terms follow.

Cooperative Education. Cooperative education was defined by Wilson and Lyons in the following way:

> The cooperative plan of education is defined as that educational plan which integrates classroom experience and practical work experiences in industrial, business, government, or service-type work situations. The work experience constitutes a regular and essential element in the educative process and some minimum amount of work experience (at least two different periods of work, totaling at least 16 weeks) and minimum standards of performance are included in the requirements of the institution for a degree. In addition there must be a liaison between administration of the institution and the employing firm. The essential criteria are that work experience be considered an integral part of the educational process, and that the institution take a definite responsibility for this integration.[3]

The Dictionary of Education gave the following definition of cooperative education.

> A program that provides for alternation of study in school with a job in industry or business, the two experiences being so planned and supervised

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[3]Edward H. Lyons and James W. Wilson, Work Study College Programs (New York: Harper and Brothers Inc., 1961), p. 6-7.

> cooperatively by the school and the employer that each contributes definitely to the student's development in his chosen occupation; work periods and school attendance may be on alternate half days, weeks or other periods of time.[4]

Work Experience Education. According to the Dictionary of Education work experience education is defined as "employment undertaken as part of the requirements of a school course, designed to provide planned experiences in the chosen occupation which are supervised by a school teacher or coordinator and the employer."[5]

Listed in the Handbook on Work Experience Education were several criteria which according to the author must be satisfied in order to have a "true" work experience program. According to this source, true work experience education results only when:

> it encompasses a systematic plan whereby young people, while still in school, gain realistic employment experience through part-time work performed under all of the following conditions:
>
> 1. The school adopts a specific plan of operation based on a written outline that shows the respective roles of the school, the student, and the employer.
>
> 2. The school assigns qualified personnel to direct the program and to coordinate student jobs with school learnings.
>
> 3. The school makes certain that work done by students is of a useful worthwhile nature, and that federal, state, and local laws and regulations are followed.

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[4]Carter V. Good. (ed.) Dictionary of Education, (New York: McGraw Hill Book Co. Inc. 1967) p. 66.

[5]Ibid., p. 502

4. The school, with the help of the employer, evaluates work done by students, awards credit for work successfully accomplished, and enters pertinent facts concerning the student's work on his permanent record.[6]

The California Administrative Code classifies cooperative work experience programs in three categories.

1. Vocational - in which the maximum of 16 units could be earned and in which work on the job must be related to a class taken concurrently at the junior college.

2. General - in which the maximum of 6 units could be earned and in which the work on the job need not be related to the classroom subjects.

3. Exploratory - in which the maximum of 3 units could be earned and in which the students explore several fields of work which may or may not be related to classroom activities.[7]

Coordinator. According to the Handbook on Work Experience Education, the coordinator is the school employee who has the overall responsibility for the administration and coordination of the work experience education program and to whom the student in such a program is at all times responsible.[8]

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[6]Handbook on Work Experience Education., "A Guide to the Organization and Operation of Work Experience Education Programs". (Sacramento: California State Department of Education, 1965), p. 2.

[7]California Administrative Code, Title 5, Education, Section 115.22B.

[8]Handbook, op. cit., p. 26.

Ivins and Runge defined the coordinator function in the following way:

> A coordinator is one who is in direct charge of a cooperative work experience program. He plans, organizes, administers, regulates, and carries on the program. He combines formal school teaching with actual job experiences and training on a job, and correlates theory with practice.[9]

Coordinator-Teacher. According to Ivins and Runge,

> A coordinator-teacher will perform the same duties and have the same responsibilities as the coordinator, and in addition will teach the related and vocational classes in which the cooperative work experience students are enrolled. A coordinator may not have classroom teaching to do.[10] These two terms often are used interchangeably.

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[9] Wilson H. Ivins and William B. Runge, Work Experience in High School. (New York: The Ronald Press, 1951), p. 156.

[10] Ibid.

CHAPTER II

REVIEW OF LITERATURE

I. CHARACTERISTICS AND FUNCTIONS OF COOPERATIVE WORK-STUDY PROGRAMS

Development. Cooperative Education Programs of one form or another have been in existence throughout most of the 20th Century. Dr. Herman Schneider implemented a plan in 1906 which combined engineering education with part-time shop and factory work.[11]

Later in 1921 the Antioch plan of alternate periods of work and study was used with success. Arthur Morgan as president of Antioch College during the early 1920's instituted a number of work experience programs in cooperation with small industries in the area. In order to obtain either the AB or the BS degrees, the student had to spend five years in school, of which 120 weeks were devoted to classwork and 90 to work in a factory.[12]

A number of other colleges soon implemented similar programs - Fenn College in 1923, Bennington College in 1932, and Bard College in 1934. They differed from the Antioch plan primarily in the degree of emphasis upon related elements of vocational and liberal arts preparation, and the degree of formal coordination of the work study.[13]

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[11] Ibid., pp. 44-45.

[12] Ibid., pp. 55-56.

[13] Ibid., pp. 57-58.

During World War II shortages of manpower contributed toward widespread interest in cooperative education programs across the country. Because the war effort increased the need for many more types of work activities, the importance of work study programs was emphasized, and more cooperative programs were inaugurated.

Subsequent to World War II, federal legislation was passed which included provisions for "cooperative" education programs. The George Barden Act of 1946, the Vocation Educational Act of 1963 and more recently, the Vocation Education Act of 1968 all have spurred greater interest in Work-Study Programs in the junior colleges.

Professional organizations have also aroused attention to cooperative education in the United States. The National Commission for Cooperative Education in Higher Education was established to encourage new programs and to strengthen existing programs in work experience education.[14] Also, the American Association of Junior Colleges established a Work Experience Education Advisory Committee composed of representatives from education, government, industry and research to examine the place of work-study education in the junior college.[15]

In 1963 a survey was conducted on work experience education programs of junior colleges in the state of

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[14] B. Lamar Johnson, Islands of Innovations Expanding, (Chapter IV, Galley Proof, 1968).

[15] Ibid.

California. Thirty-three programs distributed among 18 different junior colleges were studied. The junior colleges in the southern California region that were identified in the study as having such programs were as follows:

Ventura Junior College - Ventura, California
Pasadena Junior College - Pasadena, California
Cerritos Junior College - Norwalk, California
Orange Coast Junior College - Costa Mesa, California
Chaffey Junior College - Alta Loma, California
Riverside City College - Riverside, California
Santa Ana College - Santa Ana, California
San Bernardino City College - San Bernardino, California[16]

Numerous additional junior colleges, technical institutes and secondary schools alike have implemented cooperative programs since the 1963 study was made. Ed Thomas, coordinator of work experience educational programs in Los Angeles County, stated that there were over 17,000 students in Los Angeles County alone participating in such cooperative programs in 1967. He added that an increasing number of these programs are being instituted in the southern California region.[17]

Benefits of Work Experience Programs. It has been the contention of educators that experiences which are closely aligned with the actual working conditions are of greatest value to the student preparing for gainful employment. The Handbook on Work Experience Education

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[16]Barlow, op. cit., p. viii.

[17]Interview, Edward Thomas, Coordinator, Los Angeles County Schools, Feb. 15, 1969.

listed the following specific areas in which students benefit from such programs.

1. Learning to assume responsibility
2. Gaining knowledge and attitudes necessary for successful job performance
3. Acquiring good work habits
4. Learning how to get along with fellow workers and employers
5. Augmenting the financial resources of the students and assisting them to remain in school
6. Developing an appreciation and understanding of the relations between formal education and job success
7. Broadening their understanding of the occupational world and of working conditions in the world of work
8. Giving students who must work a feeling that their jobs have added importance[18]

In an interview with Wayne Hart of Long Beach City College, he pointed out four ways in which he believes the students benefit from the cooperative type programs. They are as follows:

1. They help the student to understand what business and industry is all about.
2. They tend to help the student mature emotionally.
3. They help the student to identify a suitable occupation.
4. They have the effect of motivating the student toward higher educational objectives.[19]

Cooperative education helps markedly to orient college students to the world of work. According to Wilson, James and Lyons, cooperative education programs furnishes students with opportunities for exploring their own abilities in connection with real jobs and to find a

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[18]Handbook, op. cit., p. 3.

[19]Interview, Wayne Hart, Coordinator, Long Beach City College, Feb. 11, 1969.

direct means of gaining vocational information and vocational guidance not only in the occupation in which they are employed but in a number of related fields as well.[20] The students also have the chance to test their aptitude more fully than is normally possible on the college campus.[21]

By coordinating work experience with the campus education program, theory and practice are more closely related and students find greater meaning in their studies. In a national survey of work study education, Ralph W. Tyler found that cooperative activities of work and study increases student motivation. He reported that "as students see connections between the jobs they hold and the things they are learning on campus, greater interest in academic work develops."[22] Tyler pointed out also that cooperative education helps to orient the student toward the world of work. He stated that "for many students, cooperative work experience contributes to a greater dependence upon their own judgements and a corresponding development of maturity".[23]

Leonard Dionisio, Coordinator, Pasadena Junior College, explained two benefits which he believes students derive from

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[20]Wilson, op. cit., pp. 31-32.

[21]Ibid.

[22]Henry T. Tyler, Report of the Study of Work Experience Programs in California High Schools and Junior Colleges, Bulletin of the California State Department of Education, Vol. XXV, No. 3, July 1956 (Sacramento: California State Printing Office), p. 46.

[23]Ibid.

Work Experience Education Programs:

1. They provide a means whereby the student can go from an educational institution directly to an occupation of his choice without the trauma that is often associated with the trial and error search for a job.
2. They provide financial assistance to the student while he is learning.[24]

William Long, a participating student in an auto-mechanics work experience program at Long Beach City College, stated he believed the greatest benefit of the program to him, personally, was that it provided him with sufficient money that he could "attend school and keep his bills paid".[25] The Handbook on Work Experience Education also listed benefits that the school, the employer, and the community receive from cooperative work experience programs.

Benefits to the school. For the school, work experience education---

1. Provides an opportunity for the school to relate academic training to job requirements.
2. Utilizes many community facilities and resources for training purposes, thus making it possible for the school to provide training in fields that the school program could otherwise not serve.
3. Increases the school's ability to hold students in school for a longer period of time.
4. Provides assistance in occupational guidance.
5. Enables the school to keep abreast with developments in the business and industrial world.
6. Provides a direct avenue through which the school can meet community needs.
7. Develops good school-community relations.
8. Acquaints employers with the work that young people trained in the schools can perform.

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[24]Meeting of Coordinators of Junior Colleges of Southern California, Pasadena City College, Pasadena, California, Feb. 3, 1969.

[25]Interview, William Long, student, Cooperative Work Experience class, Long Beach City College, Long Beach, California, Feb. 11, 1969.

Benefits to the employer. For the employer, work experience education---

1. Provides the employer with carefully selected, part-time help who may become permanent at a later date.
2. Provides an opportunity for the employer to train possible future employees by use of the methods that he has found to be most satisfactory for his operation.
3. Provides the employer with employees who are receiving additional training through related instruction at school.
4. Serves as a training program for prospective employees of small businesses or industries that are unable to conduct extensive training programs within their own establishments.
5. Reduces turnover because the employees have become adjusted to the job before they accept full-time employment.

Benefits to the community. For the community, work experience education---

1. Provides the community with an increased source of well trained workers.
2. Provides the community with a labor force that is more thoroughly trained than graduates who have not had work experience education and hence works more efficiently.
3. Increases cooperation between the community and the school.
4. Increases the possibility that young people will remain in the community after graduation, since they will already have found a place in community life.[26]

Responsibilities of the School.

Advisory Committees.

Advisory committees may be organized for any purpose which supports the educational programs of the college, but they are most widely used in connection with technical and vocational programs. Some colleges have general advisory committees or councils which meet with the college administration regularly to discuss problems pertinent to the community and the college and to make recommendations to the board of control and the president for the improvement or revision of the educational services.[27]

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[26]Handbook, op. cit., pp. 4-5.

[27]Blocker, Clyde E., et al., The Two-Year College, a Social Synthesis, (New York: Prentice Hall, Inc., 1965), p. 193.

Barlow reported that Advisory Committees are important to the success of cooperative education programs. An advisory committee which includes employer and employee representatives, school personnel, and interested persons from the community in which the work experience program is to operate is very helpful not only in providing counsel and guidance to the program, but in establishing acceptance and support of the program as well.[28]

Of the 33 programs studied in 1963, 70% of the 18 junior colleges had advisory committees and the average membership was 11. The study indicated that almost all of the more successful cases, the coordinator, department chairman, dean of instruction, dean of vocational education, director of placement and members of the curriculum committee were involved in the selection, endorsement or approval of the advisory committee members.[29] "It is extremely important that members of an advisory committee be individuals who have an understanding of and interest in the total educational program of the community", according to the Handbook on Work Experience Education.[30]

The appointment period for the advisory committee member may vary some with the school. The 1963 survey indicated that one year appointments were the most popular because it added flexibility to the committee in that

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[28]Barlow, op. cit., p. 17.

[29]Ibid., pp. 17-18.

[30]Handbook, op. cit., p. 20.

active members may be retained and members who are uninterested or inactive may not be reappointed at the end of the year.[31] The Handbook on Work Experience Education stated that "the customary term of service is three years with one-third of the members terminating their service each year".[32]

Specifically, advisory committees aid cooperative work experience programs in several ways. They help to:

1. Publicize the entire program in the community.
2. Maintain good community relations.
3. Make community surveys.
4. Locate training stations.
5. Set up standards for the selection of students and work stations.
6. Obtain classroom equipment and materials.
7. Establish standard practices for the employment of students.
8. Solve specific problems in conjunction with the employer.
9. Act as a guide in problems concerning wages and hours.
10. Determine a course of action on general problems that arise.
11. Make recommendations concerning courses of related instruction.
12. Continually evaluate the entire program.
13. Provide information concerning areas in which employment opportunities are expected to open up or fall off.
14. Act as a sounding board for new ideas.
15. Arrange special events, such as student-employer banquets.[33]

A clear statement of the functions and limitations of an advisory committee on work experience education should be set forth in the plan of operation for the program. "Of greatest importance is the understanding

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[31] Barlow, op. cit., p. 19.

[32] Handbook, loc. cit.

[33] Ibid., pp. 20-21.

that the committee is only advisory in character, and that its advice is to the board of trustees, to accept or reject. It has no administrative or policy forming power. The good committee will make suggestions on policy and procedure, but the authority rests with the policy-making body of the college".[34]

The Coordinator. It has been said facetiously that a coordinator is "a fellow who teaches a couple of classes and then goes downtown to drink coffee with his business-man cronies". Unfortunately, some administrators and teachers often do not realize the full range of responsibilities that a teacher-coordinator has. They fail to appreciate the fact he is a teacher, a public relations man, a counselor, a successful employee who knows a trade, an administrator and an evaluator all integrated into one function".[35]

Work experience education consists of two major parts; the school program and the on-the-job program. The function of coordination is the development and maintenance of appropriate relationships between these two major parts. Henry T. Tyler identified this relationship as follows: "The school must take effective means to assure that the experiences gained by work experience education students

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[34] Ibid.

[35] Peter G. Haines and Ralph E. Mason, Cooperative Occupational Education and Work Experience (Danville, Illinois: The Interstate Printers and Publishers, 1965), p. 124.

through their employment will be coordinated with learnings in the school itself".[36]

The coordinator of any work experience education program must perform in a wide variety of functions in order to assure success of a program. If he assumes his duties with a program that has been in operation for some time, his duties probably will begin with finding and approving work stations. Other general duties include drawing up a training agreement, working with the student and the employer on the job and in school conferences and related instruction classes and evaluating students work.[37]

There are a number of personal characteristics that the coordinator should possess in order for him to be successful in these roles. Most of the sources indicate that the success of the coordinator is measured primarily in terms of the degree to which the following questions can be answered satisfactorily.

1. How much experience has he had as a wage earner in a business or industry and/or in owning and operating a business or industry?
2. What is his educational background?
3. What teaching experience has he had?
4. What affiliations and community contacts does he have and into what community activities do his avocational interests take him?
5. Does he appear to have the personality traits that would be necessary to get along successfully with many types of people?
6. Is he well known in the community?

There does not appear to be any set criteria which are used to determine whether or not a potential coordinator is really qualified for a particular position.

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[36] Tyler, op. cit., pp. 86-87.

[37] Haines and Mason, op. cit., p. 130.

The Student. In the final analysis the success of a work experience education program must be measured in terms of how much the students are actually benefited. It is the responsibility of the school administration, the coordinators, teachers and counselors to see that the students are involved in a worthwhile program.

One of the essential prerequisites for this success is the provision of suitable work stations. Finding such work stations is usually the responsibility of the coordinator. In carrying out this assignment the coordinator must give consideration to the needs, interests and abilities of the student and must attempt to match the job and the student.[38]

The types of work stations will vary, depending upon the type of work experience education to be conducted. The scope of work station possibilities is usually determined either through community surveys, or by direct contact and solicitation of employers by the coordinator. In choosing the appropriate work station for a particular student, the coordinator may find it necessary to visit several employers before he is able to make a suitable selection.

The standards for selecting work stations are set forth in the California Administrative Code in which the following are listed:

(a) The employer is in sympathy with the educational objective of providing work experience for the pupil.
(b) The employer knows of the intent and purpose of the work experience education program.

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[38] Ibid.

(c) The work station offers a reasonable probability of continuous employment for the pupil during the work experience period for which he is enrolled.
(d) The employer has adequate equipment, materials, and other facilities to provide an appropriate learning opportunity.
(e) Overall desirable working conditions prevail which will not endanger the health, safety, welfare, or morals of the pupils.
(f) The employer will provide adequate supervision to insure a planned program of the pupil's job activities in order that the pupil may receive maximum educational benefit.
(g) The employer, as required by law, will provide adequate compensation insurance.
(h) The employer will maintain accurate records of the pupil's attendance.[39]

There are also additional factors that the coordinator should consider when he chooses a work station.

1. Are wages comparable to wages paid for similar occupations in the community?
2. Is the work station conveniently located with respect to the student, the school, and the coordinator?
3. What is the reputation of the employer within the community?
4. Does the employer select his employees carefully?
5. Will the job provide a sufficient number of hours of profitable training?
6. Will the job provide training in all appropriate phases of the occupation rather than in routine activities only?
7. Does the job provide training in an occupational area in which a beginner would have a reasonable chance of finding full-time employment upon graduation, if he should so desire?
8. Are the tasks to be performed on the job within the range of the student's ability but at the same time difficult enough to provide a challenge?
9. Do local union regulations and practices affect work experience education students?[40]

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[39] California Administrative Code, Section 115.26 Selection of Work Stations.

[40] Handbook on Work Experience Education, op. cit., pp. 28-29.

Ivins and Runge listed the following factors that should be considered in selecting a work station.

1. Employers interest in the training plan.
2. Training facilities.
3. An occupation suited to the cooperate plan of training.
4. Opportunity for employment after training.
5. Opportunity for advancement.
6. Pay scale (prevailing rates should be estimated).
7. Regularity of part-time employment - seasonal work not best.
8. Accessibility of the training agency to the school.
9. Hazardous occupations.[41]

Problems of Cooperative Work Experience Education Programs. Very little seems to have been written about difficulties that have been encountered in the operation of cooperative programs. Difficulties or limitations of the programs that have been identified appear to differ from one institution to another with no one difficulty being common to a number of different colleges.

The following difficulties have been reported by various college administrators, coordinators, teachers, and students who have been involved in cooperative work experience education programs.

B. Lamar Johnson reported the following problems and difficulties which may be encountered in cooperative work study programs.[42]

1. Coordinated college-employer supervision of student employment. At times students report that inadequate supervision is provided by the college and/or the employer. In particular, such supervision is occasionally not coordinated, so that employers and college staff members give conflicting advice.

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[41] Ivins and Runge, op. cit., p. 205.

[42] Johnson, op. cit., pp. 56-57.

2. Relationship between college courses and employment experience. Students at a number of colleges report that their course work is but slightly related to their work experience.

3. Conflicts in scheduling work experience and college classes. This problem is, of course, eliminated when the student at alternate periods studies full-time and then is employed full-time.

4. Student overemphasis on financial remuneration in his employment. Students, it is reported, often wish to accept higher paying employment which is indirectly related to their course work, rather than lower paying positions which are directly relevant to their educational goals.

5. Student placement. Upon occasion, even though students are placed in positions for which they are qualified and which are related to their educational and occupational goals, employers are not satisfied with their work. (This is seldom reported, however, high employer satisfaction appearing to be the rule.)[43]

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[43] B. Lamar Johnson, op. cit., unnumbered.

CHAPTER III

METHOD OF PROCEDURE AND RESULTS OF THE SURVEY

Current Cooperative Programs in the Junior Colleges. Telephone interviews were conducted with members of faculty, or administrators of the southern California junior colleges to determine if they have implemented or plan to implement some form of cooperative work experience program. The interviews revealed a sharp rise in both the number of junior colleges participating in such programs and the number of study categories offered by the respective colleges. Junior colleges which either have work experience programs incorporated in their curricula, or have completed plans for introducing programs for the fall semester, 1970 are listed as follows:

Los Angeles Trade Tech
Los Angeles Harbor College
Fullerton Junior College
Long Beach City College
Cypress Junior College
Los Angeles City College
El Camino Junior College
Cerritos Junior College
Citrus Junior College
East Los Angeles Junior College
Los Angeles Valley College
Golden West College

Descriptions of the Programs. Eight of the community colleges in Los Angeles and Orange counties were selected and visited to investigate the work experience education programs offered at these institutions. The schools selected were:

Pasadena City College
Los Angeles Pierce College
Los Angeles Trade Tech
East Los Angeles Junior College
Los Angeles Valley College
Orange Coast Junior College
Golden West Junior College
Long Beach City College

Interviews were conducted with the various teacher-coordinators, or administrative personnel of the aforementioned schools. Specific appointments could not be made in most instances because of the time constraint.

Pasadena City College. Pasadena City College has had a rather extensive cooperative work experience program for several years. Their program not only encompasses distributive education but also technology fields. Their program allows up to a total of 12 credits with the students enrolling in 3 credits each semester. It is structured so that a variety of different skills are applicable so long as they are "marketable".[44]

Los Angeles Pierce College. An interview with Mr. Goodman revealed that they presently have a general type program in merchandising, data processing, and accounting. The student is expected to have had at least one year successful work in a closely related field. The student then may register in a 2 unit course which combines work on the job and classroom sessions in which the student reviews problem areas in class. Mr. Goodman stated that

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[44]Interview, George Juett, Chairman, Business Department; and Lawrence A. Johannsen, Chairman, Technology, Pasadena City College, Feb. 3, 1969.

the program has been very beneficial to the disadvantaged students.[45]

Los Angeles Trade Tech. An interview with Floyd Nardella disclosed that they have just recently established one course area of cooperative work experience programs. They are beginning their program with drafting which will be offered during the fall semester of 1970. Mr. Nardella has just recently been assigned the post coordinator and is engaged in finding new work stations for more subject areas.[46]

East Los Angeles Junior College. In an interview with E. Supriano, it was found that they have a cooperative work study program in the area of highway construction with the State of California. He stated that the program is designed so that the student works for a period of time with the State of California, then returns to school to take further course work.[47]

Los Angeles Valley College. Ellis Foster stated that Los Angeles Valley College has a program in distributive education in which they cooperate with department store

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[45]Interview, Robert Goodman, Engineering Division, Los Angeles Pierce College, Feb. 3, 1969.

[46]Interview, Floyd Nardella, Teacher-Coordinator, Los Angeles Trade Technical College, Jan. 30, 1969.

[47]Interview, E. Supriano, Chairman, Engineering Technology Division, East Los Angeles Junior College, Jan. 30, 1969.

managers to train students to become managers in the respective stores. Typical department stores are, May Company, Robinsons, and Sears.[48]

Orange Coast College. Orange Coast College had a total of 17 work experience courses; this was the most extensive offering of the eight colleges studied. Following is a list of the courses offered:

Agriculture
Architectural Technology
Data Processing
Business Management and Retailing
Civil Technology
Construction Technology
Dental Assisting
Dental Technology
Food Service
Medical Assistant
Metal Trade Technology
Photography
Police Science
Secretarial Science
Tool Design[49]

All of these courses require one hour lecture, and the number of hours of employment varies from 8 to 12 per week, depending on the number of units offered for the course. Generally two units for 8 hours and three units for 12 hours of work per week were given to the students enrolled.

Golden West College. Golden West College, in its third year of operation, offers six areas of work experience education. They are:

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[48]Interview, Ellis Foster, Valley State Junior College, Feb. 4.

[49]Interview, John Owen, District Director of Vocational Education, Orange Coast College, Feb. 13, 1969.

Auto Body Mechanics
Automotive Technology
Secretarial Science
Business Management and Retailing
Instrumentation Technology
Technical Drafting

All of these courses are three units credit. One hour of lecture and eight hours of employment per week are required, except for secretarial science which requires 15 hours of work experience in addition to the one hour lecture.[50]

Long Beach City College. Long Beach City College offers four programs in work experience. The programs are:

Business Real Estate
Business Merchandising
Auto Mechanics
Refrigeration.

A one hour lecture is required with the work experience course. The student can enroll for one to four units of credit. Each additional unit requires an additional 5 hours per week of employment.[51]

Plans are being made to increase the course offerings but nothing concrete will be proposed until after May of next year because of the new Vocational Education Act of 1968. Keith James, Associate Dean of Occupational Preparation, said no new courses can be added until they are sure what their funding will be for the next fiscal year.[52]

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[50]Interview, Ed Parsons, Chairman, Technology Division, Golden West College, Feb. 4, 1969.

[51]Interview, Wayne Hart, Coordinator, Long Beach City College, Feb. 13, 1969.

[52]Interview, Keith James, Assoc. Dean, Occupational Preparation, Long Beach City College, Feb. 11, 1969.

CHAPTER IV

RESULTS FROM INTERVIEWS

Teacher-Coordinators. A structured interview sheet was used to interview representatives of the various colleges. The following are results of statements made in response to the questions.

1. How many Work Experience Programs do you offer?

   The number of programs offered varied from one at Los Angeles Trade Tech to 17 at Orange Coast College. All of the colleges sampled in the southern California area offered some type of work experience education program except two.

2. How long has your college offered Cooperative Work Experience Programs?

   The periods of time given during the interviews ranged from 0 to 12 years. Pasadena City College and Orange Coast College have had programs the longest, Los Angeles Trade Tech the shortest. (They plan to begin a program in drafting the next semester).

3. How many Programs have been discontinued?

   None of the colleges studied had discontinued programs although some had undergone revision.

4. How were you selected for the job as Coordinator?

   All of the persons interviewed indicated that they had been former teachers, and they believed that they were selected primarily on their past teaching performances, knowledge of the general subject areas and

experience in the field itself. They indicated that they had not taken aptitude or interest type tests specifically for their positions.

5. How are the students graded for their work?

All of the interviewees stated that the students are graded by both the employer and the teacher-coordinator. The employer uses a rating method and the teacher grades the students for the work experience courses.

6. Do you utilize an Advisory Committee?

All of the schools sampled utilize an Advisory Committee.

7. Do you believe your Advisory Committee is effective?

Five of the respondents stated that their Advisory Committees were effective, but three indicated that they believed their Advisory Committees were too "perfunctory" in nature.

8. What difficulties have you found in carrying out your work experience programs?

The difficulty most frequently described was "too much work with too little help". The coordination function encompasses so many facets that it is very difficult to teach and do an effective job of coordination at the same time. (Most of the coordination tasks are carried out by teacher-coordinators).

Students

Interviews were also conducted with students randomly selected from Orange Coast College and Long Beach City College.

Because of the limited time available, it was not possible to interview employers as originally intended. It was found to be very difficult to schedule a mutually suitable time for such interviews.

The most significant result that was obtained from the student interviews was that 5 out of the 8 students indicated that they liked the cooperative programs better than regular classes because the students believe that they achieve a better general understanding of the work itself. (This refers to the practical applications that the students are experiencing on the job). However, the students, in general, indicated that they believed that the work on the job could be made more effective by better planning of the work activities.

A survey was also conducted of Industrial Technology students in four random classes. The classes selected and the number of students in each class are as follows:

Class	Total Number	Transfer from J.C.
Materials of Industry	39	34
Descriptive Geometry	28	24
Quality Assurance	32	28
Production Analysis	41	35
Total	140	121

Three questions were asked of the students. The following are results of statements made in response to the questions.

How many of you have transferred from a junior college in Southern California?

The number of students who indicated that they had transferred from such junior colleges was 121 (85%). The 121 students were then asked:

How many of you participated in Work Experience Education programs while in junior college?

Only 11 of the 121 students indicated that they had done so. (Only 18 of the students indicated that they even knew what such programs were). Grades of the 11 students were, subsequently, compared by the writer with 11 randomly selected students of the remaining 110. The writer was unable to see any meaningful relationship between the grades of those students who had participated in work experience programs in the junior colleges and the sample who had not.

The four classes (140 students) were asked:

How many of you have had your work experience requirement for graduation satisfied?

Of the 140 students who were asked, 83 indicated that they had. The grades of 10 randomly selected students of the 83 were compared with the grades of the 11 students who had participated in work experience education programs. The results did not reveal any degree of correlation.

However, when comparing the grades of 10 randomly selected students of those who had completed their work experience requirements for graduation with the grades of 10 randomly selected students who had not, 8 out of 10 times those students with work experience had on an average higher grades in the major subjects than those who had not

completed their work experience requirement. It appears, therefore, that although work experience gained from junior college work experience education could not be correlated with academic achievement in the industrial technology subjects, work experience, per se, does seem to correlate.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

I. CONCLUSIONS

Based on the offerings of the colleges studied and the interest expressed by those interviewed it is the writer's opinion that a great service is being offered to the communities in which these work experience programs are being offered.

In spite of the great problems involved in coordinating programs involving business, industry and the community college, there seems to be a trend to continue and expand programs of work experience. The local, state, and federal governments are aiding in the planning and funding of new programs. It is the opinion of the writer that with the new Vocational Education Act of 1968 an even greater interest and emphasis will be placed on cooperative work experience in the future.

II. RECOMMENDATIONS

To assure a quality program in work experience education it is suggested the following guidelines be used in planning new programs:

1. Judgement should be exercised to select work stations that are relevant and in concert with student objectives.
2. More active participation of Advisory Committees should be solicited.

3. Counseling should be utilized to prevent students from taking programs without real interest in the occupation selected for work experience.

4. Coordinators of junior college programs should obtain feedback information from high school programs.

Suggestions for Further Study

1. It is suggested that more study be conducted which relates to the criteria for selecting coordinators for these programs. Personal characteristics such as attitude and interest in coordination type activities on the part of the coordinator perhaps have as great an influence on the success of a program as any other factor.

2. It is also suggested that more study be conducted on the financial aspects of Work Experience Education programs. Since the latest Vocational Educational Act of 1968 which has allocated $279,000,000 for vocational education purposes, there will undoubtedly be increased interest in such vocational activities in the junior colleges.

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